IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of: **Masanobu SUGAWARA et al.** Group Art Unit: **1626**

Application Number: **10/716,430** Examiner: **Andrew B. Freistein**

Filed: **November 20, 2003** Confirmation Number: **6955**

For: **PROCESS FOR PREPARING OPTICALLY ACTIVE AMINO ACID DERIVATIVES**

Attorney Docket Number: **011392A**
Customer Number: **38834**

DECLARATION UNDER 37 C.F.R. §1.132

Mail Stop Amendment
Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

Sir:

I, Akio Fujii, hereby declare and state:

THAT I have graduated from Osaka City University, Faculty of Science, receiving a Doctor's Degree in March of 1994;

THAT I have been employed by Kaneka Corporation since 1999, where I have been engaged in research and development relating to pharmaceutical intermediates;

THAT I am a co-inventor of the above identified application;

THAT the following experimentation was conducted under my supervision and control;

Experimental Example 1

Production of (S)-aziridine-2-carboxylic acid.

To 20 mL of a 0.8095 N aqueous ammonia (1.619 mmol) heated to 50°C, 1.0 g (8.095 mmol) of (S)-3-chloroalanine was added collectively. Atfer 3 hours stirring at 50°C, the internal temperature was lowered to about 25°C by cooling. This reaction solution proved to contain 529 mg (6.071 mmol) as (S)-aziridine-2-carboxylic acid (Yield = 75%).

Comparison of Experimental Example 1 with Examples 9-13

The Table below shows a comparison of Experimental Example 1 with Examples 9-13 of the specification of the above-identified application.

[Conclusions by Declarant]

As it was apparent from the following results, when amine (as shown in Examples 9-13; and claim 48 of the present invention) was used, extremely high yield was obtained, compared with Experimental Example 1 wherein an aqueous ammonia was used. Accordingly, unexpected effects were proved in view of the comparison between Examples 9-13 and Experimental Example 1.

Table: Comparison of Experimental Example 1 with Examples 9-13 from Applicants' Specification

		Substrate	Base	Base/substrate (eq) (used for aziridination reaction)	Temp.	Reaction time	Yield (%)	Stereo Configuration of the Product
Example 9	Inventive	(S)-3-Chloroalanine	Triethylamine		50	3 hr.	95	(S)-form
Example 10	Inventive	(S)-3-Chloroalanine	Triethylamine		50	3 hr.	95	(S)-form
Example 11	Inventive	(S)-3-Chloroalanine	Triethylamine		50	3 hr.	92	(S)-form
Example 12	Inventive	(S)-3-Chloroalanine	Di-isopropylamine		50	3 hr.	86	(S)-form
Example 13	Inventive	(S)-3-Chloroalanine	Isopropylamine		50	3 hr.	95	(S)-form
Experimental Example 1	Comparative	(S)-3-Chloroalanine	Aqueous Ammonia		90	3 hr.	75	(S)-form

I declare further that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Date: June 24, 24

Akio Fujii